

**CLAIMS**

What is claimed is:

- 1    1.    A method for detecting modifications to risk assessment scanning caused by  
2        an intermediate device, comprising:  
3        (a) initiating a risk assessment scan on a target from a remote source utilizing a  
4            network;  
5        (b) determining whether the risk assessment scan involves an intermediate  
6            device coupled between the target and the remote source;  
7        (c) receiving results of the risk assessment scan from the target utilizing the  
8            network; and  
9        (d) notifying an administrator if it is determined that the risk assessment scan  
10          involves the intermediate device.
  
- 1    2.    The method as recited in claim 1, wherein the intermediate device includes a  
2        router.
  
- 1    3.    The method as recited in claim 1, wherein the intermediate device includes a  
2        proxy server.
  
- 1    3.    The method as recited in claim 1, wherein a plurality of procedures are  
2        utilized to determine whether the risk assessment scan involves the  
3        intermediate device.
  
- 1    4.    The method as recited in claim 3, wherein at least one of the procedures  
2        includes determining a port list associated with the risk assessment scan.

- 1    5.    The method as recited in claim 4, wherein the at least one of the procedures  
2       further includes determining whether a value of a flag is different for  
3       communication attempts using at least two ports on the port list.
- 1    6.    The method as recited in claim 5, wherein the flag includes an ip\_ttl flag.
- 1    7.    The method as recited in claim 5, wherein the flag includes a tcp\_win flag.
- 1    8.    The method as recited in claim 5, wherein the communications include  
2       connection attempts between the remote source and the target utilizing the  
3       network.
- 1    9.    The method as recited in claim 5, wherein the at least one of the procedures  
2       further includes indicating that the risk assessment scan involves the  
3       intermediate device if the value of the flag is different for the communication  
4       attempts using the at least two ports on the port list.
- 1    10.   The method as recited in claim 3, wherein at least one of the procedures  
2       includes transmitting a first request for content to the target utilizing the  
3       network, and transmitting a second request for a cached version of the  
4       content to the target utilizing the network.
- 1    11.   The method as recited in claim 10, wherein the cached content is requested  
2       from the target utilizing a via tag.
- 1    12.   The method as recited in claim 10, wherein the at least one of the procedures  
2       further includes analyzing responses to the first and second requests.
- 1    13.   The method as recited in claim 12, wherein the at least one of the procedures  
2       further includes indicating that the risk assessment scan involves the  
3       intermediate device based on the analysis.

- 1    14. The method as recited in claim 13, wherein the at least one of the procedures  
2       further includes indicating that the risk assessment scan involves the  
3       intermediate device if the responses to the requests are different.
- 1    15. The method as recited in claim 3, wherein at least one of the procedures  
2       includes transmitting a request without specifying a host header value.
- 1    16. The method as recited in claim 15, wherein the at least one of the procedures  
2       further includes identifying an error message in response to the request.
- 1    17. The method as recited in claim 16, wherein the at least one of the procedures  
2       includes indicating that the risk assessment scan involves the intermediate  
3       device if the response includes the error message.
- 1    18. A computer program product for detecting modifications to risk assessment  
2       scanning caused by an intermediate device, comprising:  
3       (a) computer code for initiating a risk assessment scan on a target from a remote  
4       source utilizing a network;  
5       (b) computer code for determining whether the risk assessment scan involves an  
6       intermediate device coupled between the target and the remote source;  
7       (c) computer code for receiving results of the risk assessment scan from the  
8       target utilizing the network; and  
9       (d) computer code for notifying an administrator if it is determined that the risk  
10      assessment scan involves the intermediate device.
- 1    19. The computer program product as recited in claim 18, wherein the  
2       intermediate device includes a router.
- 1    20. The computer program product as recited in claim 18, wherein the  
2       intermediate device includes a proxy server.

- 1    21. The computer program product as recited in claim 18, wherein a plurality of  
2        procedures are utilized to determine whether the risk assessment scan  
3        involves the intermediate device.
  
- 1    22. The computer program product as recited in claim 21, wherein at least one of  
2        the procedures includes determining a port list associated with the risk  
3        assessment scan.
  
- 1    23. The computer program product as recited in claim 22, wherein the at least  
2        one of the procedures further includes determining whether a value of a flag  
3        is different for communication attempts using at least two ports on the port  
4        list.
  
- 1    24. The computer program product as recited in claim 23, wherein the flag  
2        includes an ip\_ttl flag.
  
- 1    25. The computer program product as recited in claim 23, wherein the flag  
2        includes a tcp\_win flag.
  
- 1    26. The computer program product as recited in claim 23, wherein the  
2        communications include connection attempts between the remote source and  
3        the target utilizing the network.
  
- 1    27. The computer program product as recited in claim 23, wherein the at least  
2        one of the procedures further includes indicating that the risk assessment  
3        scan involves the intermediate device if the value of the flag is different for  
4        the communication attempts using the at least two ports on the port list.
  
- 1    28. The computer program product as recited in claim 21, wherein at least one of  
2        the procedures includes transmitting a first request for content to the target

3       utilizing the network, and transmitting a second request for a cached version  
4       of the content to the target utilizing the network.

1   29.   The computer program product as recited in claim 28, wherein the cached  
2       content is requested from the target utilizing a via tag.

1   30.   The computer program product as recited in claim 28, wherein the at least  
2       one of the procedures further includes analyzing responses to the first and  
3       second requests.

1   31.   The computer program product as recited in claim 30, wherein the at least  
2       one of the procedures further includes indicating that the risk assessment  
3       scan involves the intermediate device based on the analysis.

1   32.   The computer program product as recited in claim 31, wherein the at least  
2       one of the procedures further includes indicating that the risk assessment  
3       scan involves the intermediate device if the responses to the requests are  
4       different.

1   33.   The computer program product as recited in claim 21, wherein at least one of  
2       the procedures includes transmitting a request without specifying a host  
3       header value.

1   34.   The computer program product as recited in claim 33, wherein the at least  
2       one of the procedures further includes identifying an error message in  
3       response to the request.

1   35.   The computer program product as recited in claim 34, wherein the at least  
2       one of the procedures includes indicating that the risk assessment scan  
3       involves the intermediate device if the response includes the error message.

- 1    36. A system for detecting modifications to risk assessment scanning caused by  
2        an intermediate device, comprising:  
3        (a) logic for initiating a risk assessment scan on a target from a remote source  
4            utilizing a network;  
5        (b) logic for determining whether the risk assessment scan involves an  
6            intermediate device coupled between the target and the remote source;  
7        (c) logic for receiving results of the risk assessment scan from the target utilizing  
8            the network; and  
9        (d) logic for notifying an administrator if it is determined that the risk  
10          assessment scan involves the intermediate device.
- 1    37. A method for detecting modifications to risk assessment scanning caused by  
2        a proxy server, comprising:  
3        (a) initiating a risk assessment scan on a target from a remote source utilizing a  
4            network;  
5        (b) executing a plurality of procedures to determine whether the risk  
6            assessment scan involves a proxy server coupled between the target and the  
7            remote source;  
8        (c) said procedures utilizing a plurality of parameters selected from the group  
9            consisting of an ip\_ttl flag, a tcp\_win flag, a via tag, and a host header value;  
10      (d) receiving results of the risk assessment scan from the target utilizing the  
11          network;  
12      (e) flagging the results of the risk assessment scan if at least one of the  
13          procedures indicates that the risk assessment scan involves a proxy server  
14          coupled between the target and the remote source; and  
15      (f) notifying an administrator if the results of the risk assessment scan are  
16          flagged.
- 1    38. A computer program product for detecting modifications to risk assessment  
2        scanning caused by a proxy server, comprising:

- 3       (a) computer code for initiating a risk assessment scan on a target from a remote
- 4              source utilizing a network;
- 5       (b) computer code for executing a plurality of procedures to determining
- 6              whether the risk assessment scan involves a proxy server coupled between
- 7              the target and the remote source;
- 8       (c) said procedures utilizing a plurality of parameters selected from the group
- 9              consisting of an ip\_ttl flag, a tcp\_win flag, a via tag, and a host header value;
- 10      (d) computer code for receiving results of the risk assessment scan from the
- 11              target utilizing the network;
- 12      (e) computer code for flagging the results of the risk assessment scan if at least
- 13              one of the procedures indicates that the risk assessment scan involves a proxy
- 14              server coupled between the target and the remote source;
- 15      (f) computer code for notifying an administrator if the results of the risk
- 16              assessment scan are flagged.